

AMENDMENTS

The listing of claims will replace all prior versions, and listings, of claims in the application:

In the claims

Claims 1-76 (Cancelled)

Claim 77 (Currently Amended): A nucleic acid/lipid/polycationic polypeptide salt complex comprising a nucleic acid, at least one lipid species, and at least one polycationic polypeptide salt in a ratio such that the complex has a positive charge excess of lipid and polycationic polypeptide salt to nucleic acid, and wherein the complex further comprises a targeting factor directed to a cell surface molecule.

Claim 78 and 79 (Cancelled)

Claim 80 (Previously Presented): The complex of claim 77 wherein, in the at least one polycationic polypeptide salt, arginine residues constitute at least about 30 % of the amino acid residues, and lysine residues constitute less than about 5 % of the amino acid residues of the polypeptide.

Claim 81 (Previously Presented): The complex of claim 77 wherein, in the at least one polycationic polypeptide, arginine residues constitute about 65 to 75 % of the amino acid residues, and lysine residues constitute about 0 to 3% of the amino acid residues of the polypeptide.

Claim 82 (Cancelled)

Claim 83 (Previously Presented): The complex of claim 81, wherein the surface of the complex is positively charged.

Claim 84 (Previously Presented): The complex of claim 77, wherein the at least one polycationic polypeptide salt is a sulfate salt.

Claim 85 (Currently Amended): The complex of claim 77, wherein the at least one polycationic polypeptide salt comprises ~~an ion~~ a counterion having two negative charges.

Claim 86 (Previously Presented): The complex of claim 77, wherein the at least one polycationic polypeptide salt is a protamine sulfate.

Claim 87 (Cancelled)

Claim 88 (Previously Presented): The complex of claim 77, wherein the nucleic acid comprises an E1A gene.

Claim 89 (Previously Presented): The complex of claim 77, wherein the at least one lipid is a cationic lipid.

Claim 90 (Previously Presented): The complex of claim 77, wherein the at least one lipid is 3β[N-(N', N'-dimethylaminoethane)-carbamoyl]cholesterol (DC-Chol).

Claim 91 (Previously Presented): The complex of claim 77, wherein the at least one polypeptide is from about 20 to about 100 amino acids in length.

Claim 92. (Previously Presented): The complex of claim 77, wherein the complex further comprises a neutral phospholipid species.

Claim 93. (Previously Presented): The complex of claim 77, wherein the ratio of the nucleic acid:lipid:polycationic polypeptide salt is about 1 μg/0.1 nmol/0.01 μg to about 1 μg/200 nmol/100 μg.

Claim 94 (Previously Presented): The complex of claim 77, wherein the complex has a diameter of less than about 400 nm.

Claim 95 (Currently Amended): ~~The complex of claim 77,~~ A nucleic acid/lipid/polycationic polypeptide salt complex comprising a nucleic acid, at least one lipid species, and at least one polycationic polypeptide salt, wherein the complex further comprises a targeting factor directed to a cell surface molecule, and, wherein the complex is shielded.

Claim 96 (Cancelled)

Claim 97 (Currently Amended): The complex of claim ~~77~~ 95, further comprising a compound comprising polyethylene glycol moieties.

Claim 98 (Previously Presented): A method for producing a nucleic acid/lipid/polycationic polypeptide salt complex of claim 77, the method comprising combining the nucleic acid, the lipid, the polycationic polypeptide salt, and the targeting factor to form the complex.

Claim 99 (Previously Presented): The method of claim 98, wherein the nucleic acid, lipid and polycationic polypeptide salt are mixed in a ratio of about 1 µg/0.1 nmol/0.01 µg to 1 µg/200 nmol/100 µg.

Claim 100 (Previously Presented): The method of claim 98, wherein the at least one lipid is a cationic lipid.

Claim 101 (Previously Presented): The method of claim 100, wherein the at least one cationic lipid is 3β[N-(N', N'-dimethylaminoethane)-carbamoyl]cholesterol (DC-Chol).

Claim 102 (Cancelled)

Claim 103 (Previously Presented): The method of claim 98, wherein the at least one polycationic polypeptide salt is a protamine sulfate.

Claim 104 (Previously Presented): A method for delivering nucleic acid to cells comprising contacting the cells with the complex of claim 77.

Claim 105 (Previously Presented): The method of claim 104, wherein the cells are contacted with the complex *in vivo*, the method comprising administering the complex to an individual in an amount effective to deliver the nucleic acid into the cells of the individual.

Claim 106 (Previously Presented): The method of claim 105, wherein the at least one lipid is 3 β [N-(N', N'-dimethylaminoethane)-carbamoyl]cholesterol (DC-Chol), and the at least one polycationic polypeptide salt is a protamine sulfate.

Claim 107 (Previously Presented): The complex of claim 77, wherein the targeting factor is selected from the group consisting of modified lipids, proteins, polycations and receptor ligands.

Claim 108 (Previously Presented): The complex of claim 77, wherein the targeting factor is selected from the group consisting of asialoglycoprotein, insulin, low density lipoprotein (LDL), folate, monoclonal antibodies and polyclonal antibodies.

Claim 109 (Previously Presented): The complex of claim 77, wherein the targeting factor is directed to a cell type selected from the group consisting of liver, blood, endothelial and tumor cells.

Claim 110 (Previously Presented): The complex of claim 81, wherein the targeting factor is selected from the group consisting of modified lipids, proteins, polycations and receptor ligands.

Claim 111 (Previously Presented): The complex of claim 81, wherein the targeting factor is selected from the group consisting of asialoglycoprotein, insulin, low density lipoprotein (LDL), folate, monoclonal antibodies and polyclonal antibodies.

Claim 112 (Previously Presented): The complex of claim 81, wherein the targeting factor is directed to a cell type selected from the group consisting of liver, blood, endothelial and tumor cells.

Claim 113 (Previously Presented): A method of delivering a nucleic acid to an individual, the method comprising administering to the individual a nucleic acid/lipid/polycationic polypeptide salt complex comprising a nucleic acid, at least one lipid

species, and at least one polycationic polypeptide salt, wherein the complex is administered intratumorally, intravenously, intratracheally, intraperitoneally or intramuscularly.

Claim 114 (Previously Presented): The method of claim 113, wherein the complex is administered intravenously.

Claim 115 (Previously Presented): The method of claim 113, wherein the complex is administered as an aerosol or liquid solution.

Claim 116 (Previously Presented): The method of claim 113, wherein the complex comprises a nucleic acid, at least one lipid species, and at least one polycationic polypeptide salt in a ratio such that the complex has a positive charge excess of lipid and polycationic polypeptide to nucleic acid.

Claim 117 (Previously Presented): The method of claim 113, and wherein the surface of the complex is positively charged.

Claim 118 (Previously Presented): The method of claim 113, wherein, in the at least one polycationic polypeptide salt, arginine residues constitute at least about 30 % of the amino acid residues, and lysine residues constitute less than about 5 % of the amino acid residues of the polypeptide.

Claim 119 (Previously Presented): The method of claim 113 wherein, in the at least one polycationic polypeptide, arginine residues constitute about 65 to 75 % of the amino acid residues, and lysine residues constitute about 0 to 3% of the amino acid residues of the polypeptide.

Claim 120 (Previously Presented): The method of claim 119, wherein the complex has a net positive charge.

Claim 121 (Previously Presented): The method of claim 119, wherein the surface of the complex is positively charged.

Claim 122 (Previously Presented): The method of claim 113, wherein the at least one polycationic polypeptide salt is a sulfate salt.

Claim 123 (Previously Presented): The method of claim 113, wherein the at least one polycationic polypeptide salt is a protamine sulfate.

Claim 124 (Cancelled)

Claim 125 (Previously Presented): The method of claim 113, wherein the nucleic acid comprises an E1A gene.

Claim 126 (Previously Presented): The method of claim 113, wherein the at least one lipid is a cationic lipid.

Claim 127 (Previously Presented): The method of claim 113, wherein the at least one lipid is 3 β [N-(N', N'-dimethylaminoethane)-carbamoyl]cholesterol (DC-Chol).

Claim 128 (Previously Presented): The method of claim 113, wherein the at least one polypeptide is from about 20 to about 100 amino acids in length.

Claim 129 (Previously Presented): The method of claim 113, wherein the complex further comprises a neutral phospholipid species.

Claim 130 (Previously Presented): The method of claim 113, wherein the complex has a diameter of less than about 400 nm.

Claim 131 (Previously Presented): The method of claim 113, wherein the complex is shielded.

Claim 132 (Cancelled)

Claim 133 (Previously Presented): The method of claim 113, wherein the complex further comprises a compound comprising polyethylene glycol moieties.

Claim 134 (Previously Presented): The method of claim 113, wherein the nucleic acid, lipid and polycationic polypeptide salt are present in a ratio of about 1 µg/0.1 nmol/0.01 µg to 1 µg/200 nmol/100 µg.

Claim 135 (Previously Presented): The method of claim 113, comprising administering the complex to an individual in an amount effective to deliver the nucleic acid into cells of the individual.

Claim 136 (Previously Presented): The method of claim 113, wherein the complex further comprises a targeting factor directed to a cell surface molecule.

Claim 137 (Previously Presented): The method of claim 98, wherein the complex is shielded.

Claim 138 (Previously Presented): The method of claim 98, wherein the complex further comprises a compound comprising polyethylene glycol moieties.

Claim 139 (Previously Presented): The method of claim 98, wherein the targeting factor is selected from the group consisting of modified lipids, proteins, polycations and receptor ligands.

Claim 140 (Previously Presented): The method of claim 98, wherein the targeting factor is selected from the group consisting of asialoglycoprotein, insulin, low density lipoprotein (LDL), folate, monoclonal antibodies and polyclonal antibodies.

Claim 141 (Previously Presented): The method of claim 98, wherein the targeting factor is directed to a cell type selected from the group consisting of liver, blood, endothelial and tumor cells.

Claim 142 (Previously Presented): The method of claim 104, wherein the complex is shielded.

Claim 143 (Previously Presented): The method of claim 104, wherein the complex further comprises a compound comprising polyethylene glycol moieties.

Claim 144 (Previously Presented): The method of claim 104, wherein the targeting factor is selected from the group consisting of modified lipids, proteins, polycations and receptor ligands.

Claim 145 (Previously Presented): The method of claim 104, wherein the targeting factor is selected from the group consisting of asialoglycoprotein, insulin, low density lipoprotein (LDL), folate, monoclonal antibodies and polyclonal antibodies.

Claim 146 (Previously Presented): The method of claim 104, wherein the targeting factor is directed to a cell type selected from the group consisting of liver, blood, endothelial and tumor cells.

Claim 147 (Previously Presented): The method of claim 131, wherein the complex further comprises a targeting factor directed to a cell surface molecule.

Claim 148 (Previously Presented): The method of claim 147, wherein the targeting factor is selected from the group consisting of modified lipids, proteins, polycations and receptor ligands.

Claim 149 (Previously Presented): The method of claim 147, wherein the targeting factor is selected from the group consisting of asialoglycoprotein, insulin, low density lipoprotein (LDL), folate, monoclonal antibodies and polyclonal antibodies.

Claim 150 (Previously Presented): The method of claim 147, wherein the targeting factor is directed to a cell type selected from the group consisting of liver, blood, endothelial and tumor cells.

Claim 151 (Previously Presented): The method of claim 136, wherein the targeting factor is selected from the group consisting of modified lipids, proteins, polycations and receptor ligands.

Claim 152 (Previously Presented): The method of claim 136, wherein the targeting factor is selected from the group consisting of asialoglycoprotein, insulin, low density lipoprotein (LDL), folate, monoclonal antibodies and polyclonal antibodies.

Claim 153 (Previously Presented): The method of claim 136, wherein the targeting factor is directed to a cell type selected from the group consisting of liver, blood, endothelial and tumor cells.

Claim 154 (Previously Presented): The complex of claim 107, wherein the complex is shielded.

Claim 155 (Previously Presented): The complex of claim 107, wherein the complex further comprises a compound comprising polyethylene glycol moieties.

Claim 156 (New): A nucleic acid/lipid/polycationic polypeptide salt complex comprising a nucleic acid, at least one lipid species, and at least one polycationic polypeptide salt in a ratio such that the complex has a positive charge excess of lipid and polycationic polypeptide salt to nucleic acid, and wherein the complex further comprises a targeting factor directed to a cell surface molecule, and wherein the complex has a diameter of less than about 400 nm.

Claim 157 (New): The complex of claim 156 wherein, in the at least one polycationic polypeptide salt, arginine residues constitute at least about 30 % of the amino acid residues, and lysine residues constitute less than about 5 % of the amino acid residues of the polypeptide.

Claim 158 (New): The complex of claim 156 wherein, in the at least one polycationic polypeptide, arginine residues constitute about 65 to 75 % of the amino acid

residues, and lysine residues constitute about 0 to 3% of the amino acid residues of the polypeptide.

Claim 159 (New): The complex of claim 158, wherein the surface of the complex is positively charged.

Claim 160 (New): The complex of claim 156, wherein the at least one polycationic polypeptide salt is a sulfate salt.

Claim 161 (New): The complex of claim 156, wherein the at least one polycationic polypeptide salt comprises a counterion having two negative charges.

Claim 162 (New): The complex of claim 156, wherein the at least one polycationic polypeptide salt is a protamine sulfate.

Claim 163 (New): The complex of claim 156, wherein the nucleic acid comprises an E1A gene.

Claim 164 (New): The complex of claim 156, wherein the at least one lipid is a cationic lipid.

Claim 165 (New): The complex of claim 156, wherein the at least one lipid is 3β[N-(N', N'-dimethylaminoethane)-carbamoyl]cholesterol (DC-Chol).

Claim 166 (New): The complex of claim 156, wherein the at least one polypeptide is from about 20 to about 100 amino acids in length.

Claim 167 (New): The complex of claim 156, wherein the complex further comprises a neutral phospholipid species.

Claim 168 (New): The complex of claim 156, wherein the ratio of the nucleic acid:lipid:polycationic polypeptide salt is about 1 μg/0.1 nmol/0.01 μg to about 1 μg/200 nmol/100 μg.

Claim 169 (New): The complex of claim 156, wherein the complex has a diameter of less than about 400 nm.

Claim 170 (New): A nucleic acid/lipid/polycationic polypeptide salt complex comprising a nucleic acid, at least one lipid species, and at least one polycationic polypeptide salt, wherein the complex further comprises a targeting factor directed to a cell surface molecule, and, wherein the complex is shielded.

Claim 171 (New): The complex of claim 170, further comprising a compound comprising polyethylene glycol moieties.

Claim 172 (New): The complex of claim 156, wherein the targeting factor is selected from the group consisting of modified lipids, proteins, polycations and receptor ligands.

Claim 173 (New): The complex of claim 156, wherein the targeting factor is selected from the group consisting of asialoglycoprotein, insulin, low density lipoprotein (LDL), folate, monoclonal antibodies and polyclonal antibodies.

Claim 174 (New): The complex of claim 156, wherein the targeting factor is directed to a cell type selected from the group consisting of liver, blood, endothelial and tumor cells.

Claim 175 (New): The complex of claim 158, wherein the targeting factor is selected from the group consisting of modified lipids, proteins, polycations and receptor ligands.

Claim 176 (New): The complex of claim 158, wherein the targeting factor is selected from the group consisting of asialoglycoprotein, insulin, low density lipoprotein (LDL), folate, monoclonal antibodies and polyclonal antibodies.

Claim 177 (New): The complex of claim 158, wherein the targeting factor is directed to a cell type selected from the group consisting of liver, blood, endothelial and tumor cells. --